Conclusions

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Conclusion 1:

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A weighing system contains 1 or more weighing elements (2) (loadcells). The weight of the receptor/superstructure (4) with or without a load is borne by the weighing element(s) (2). At least 1 weighing element (2) is connected with 2 fasteners (3), whereby one fastener (3) is positioned in the connection between one fastening end (7) of the weighing element (2) and the framework/chassis (5),
while the other fastener (3) is positioned in the connection between the other fastening end (6) of the weighing element (2) and the receptor/superstructure (4). At least 1 weighing element (2) with at least 1 of its fastening ends (6)(7) is entirely or partly positioned in the space between its 2 fasteners (3), characterized in that the weighing system has a device (1) that can lift the receptor/superstructure (4) for weighing and that
can deposit the receptor/superstructure (4) after weighing.

Conclusion 2, according to conclusion 1 and a possible combination with 1 or more other conclusions, with the characteristic that the weighing system is an on-board weighing system mounted on vehicles, between the framework/chassis (5) and the receptor/superstructure (4).

Conclusion 3, according to conclusion 1 and a possible combination with 1 or more other conclusions, with the characteristic that with at least 1 weighing element (2), on the side of at least one of its fastening ends (7), a connecting element is present in the connection (9) with a fastener (3), consisting of a leverage (8), such as an hydraulic cylinder, which can act as the lifting/depositing device (1).

Conclusion 4, according to conclusion 3 and a possible combination with 1 or more other conclusions, with the characteristic that the leverage (8) is positioned in such a manner that the distance between the 2 fasteners (3), belonging to the same weighing element (2), is increased or decreased, respectively, in case of a coming and going movement.

Conclusion 5, according to conclusion 1 and a possible combination with 1 or more other conclusions, with the characteristic that the weighing element (2) is a loadcell of the single bending beam type which is placed and loaded horizontally in principle, for structural reasons.

Conclusion 6, according to conclusion 1 and a possible combination with 1 or more other conclusions, with the characteristic that each of the fasteners (3) belonging to one weighing element (2) are fixed, one to the receptor/superstructure (4) and the other to the framework/chassis (5), on the one hand and each of the fasteners (3) has connection, via a universal joint (10), one to one of the fastening ends (6)(7) of that weighing element (2) and the other to the other fastening end (6)(7) of that weighing element (2), on the other hand.

Conclusion 7, according to conclusion 2 and a possible combination with 1 or more other conclusions, with the characteristic that the receptor/superstructure (4) is a superstructure, belonging to the vehicle or a superstructure reception frame (container system), belonging to the vehicle.

WO 2005/066593 PCT/BE2005/000002

Conclusion 8, according to conclusion 1 and a possible combination with 1 or more other conclusions, with the characteristic that, contrary to conclusion 1, if no weighing element (2) with at least 1 of its fastening ends (6)(7) is either entirely or partly positioned in the space between its 2 fasteners (3), but is entirely positioned outside the space between its 2 fasteners (3), the lifting/depositing device (1) is at least partly located between the 2 fasteners (3).

Conclusion 9, according to conclusion 1 and a possible combination with 1 or more other conclusions, with the characteristic that the device (1) which can lift and deposit the receptor/superstructure (4) is a hydraulic cylinder and that the pressure in the cylinder is measured in order to be converted into a weight. The weighing element (2) is replaced with a connecting element which may have the same dimensions as the weighing element (2).